

1. A hold-down for securing first and second support members in a portion of a building to an anchoring device extending from another portion of the building, the hold-down comprising:

a first flange having securement apertures therethrough configured to receive fasteners adapted to secure the first flange to the first support member;

a second flange having securement apertures configured to receive fasteners adapted to secure the second flange to the second support member;

a base connecting the first and second flanges and having an aperture sized and positioned to receive the anchoring device therethrough; and

the first and second flanges configured to be loaded substantially exclusively in tension by the anchoring device.

2. The hold-down of claim 1, wherein the first and second flanges are configured to engage the first and second support members simultaneously with substantially equal loading thereon.

3. The hold-down of claim 2, wherein the securement apertures are arranged in a pattern selected to receive fasteners therethrough to engage the respective first and second support members at a plurality of angles with respect thereto.

4. The hold-down of claim 3, wherein the thickness of the first flange is selected to hold a tensile load imposed by the anchoring device, and the number and size of the securement apertures are selected to distribute the tensile load evenly without operational damage to the flange.

5. The hold-down of claim 3, wherein the fastener is selected from a screw and a nail.

6. The hold-down of claim 5, wherein the size, number, and locations of the securement apertures are selected to resist yielding of the first flange, due to the fasteners proximate the securement apertures and under the forces induced by the tensile load, when the tensile load is insufficient to fail the base and first flange away from the apertures.

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7. The hold-down of claim 6, wherein at least one of the securement apertures is further sized and shaped to receive a fastener at any of a plurality of angles with respect thereto.

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8. The hold-down of claim 7, wherein the first support member is formed of wood and wherein the securement mechanisms are further configured to facilitate orientation of a fastener therethrough at an angle selected to resist splitting of the first support member.

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9. The hold-down of claim 7, further comprising an insert positioned to fit proximate the base to provide additional rigidity to resist deformation of the base.

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10. The hold-down of claim 9, wherein the base is formed to have an increased section modulus with respect to the first flange, to resist yielding in bending under the influence of the anchoring device.

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11. The hold-down of claim 10, wherein the section modulus is increased by a mechanism selected from increasing the thickness thereof with respect to the first flange, and bending a portion thereof away from a second portion thereof.

12. The hold-down of claim 1, wherein the first flange further comprises two surfaces, opposed to one another and configured to receive the fasteners in directions opposite one another and passing therethrough.

13. The hold-down of claim 1, wherein:

the first flange has a principal surface, having a normal perpendicular thereto and being oriented to fit adjacent the first support member;

5 the first flange has a second surface oriented at an angle with respect to the principal surface; and

the second surface is configured to receive fasteners therethrough to engage the first support member at an angle with respect to the normal.

10 14. The hold-down of claim 1, wherein the thickness of the first flange and the number and size of securement apertures are selected to balance the tensile load in the flange due to the tie down, and the tensile load in the securement region of the flange due to the fasteners.

15 15. The hold-down of claim 1, wherein at least one of the securement apertures is further sized and shaped to receive a fastener at any of a plurality of angles with respect thereto.

20 16. The hold-down of claim 1, wherein the first support member is formed of wood and wherein the securement mechanisms are further configured to facilitate orientation of a fastener therethrough at an angle selected to resist splitting of the first support member.

17. The hold-down of claim 1, further comprising an insert positioned to fit proximate the base to provide additional rigidity to resist deformation of the base.

25 18. The hold-down of claim 1, wherein the base is formed to have an increased section modulus with respect to the first flange, to resist yielding in bending under the influence of the anchoring device.

19. A method for anchoring a wall of a building, the method comprising:
providing a hold-down having a first flange, a second flange, and a base having an
aperture to admit an anchoring device;
securing the first flange to a first support member;
5 securing the second flange to a second support member;
admitting the anchoring device through the aperture in the base; and
tightening a fastener on the anchoring device to load the first and second flanges in
tension.

10 20. The method of claim 21, wherein the first and second flanges have with a
plurality of securement apertures.

15 21. The method of claim 20, wherein securing the first and second flanges to the first
and second support members, respectively, comprises admitting a securement mechanism
through a securement aperture and into the respective support member.

22. The method of claim 21, wherein the securement mechanism is admitted from
a location that is not co-linear with the first and second support members.

20 23. The method of claim 22, wherein the securement mechanism is selected from the
group consisting of a nail, a rivet, a staple, and a screw.

25 24. The method of claim 23, wherein the first and second flanges are secured to
proximal surfaces of the first and second support members without accessing the distal
surfaces of the first or second support members.

25. An apparatus for securing first and second members of a portion of a building to an anchor extending theretoward from another portion of the building, the apparatus comprising:

5 a first flange having an aperture therethrough configured to receive a fastener adapted to secure the first flange to the first member;

a second flange configured to secure to the second member;

a base connecting the first and second flanges and having a penetration sized and positioned to receive the anchor therethrough; and

10 the first and second flanges configured to be substantially exclusively in tension when supporting loading from the anchor.

26. The apparatus of claim 25, wherein the base is configured to equally distribute a load applied thereto by the anchor to the first and second flanges by deflecting.

15 27. The apparatus of claim 25, wherein the first and second flanges are configured to adjust for nonparallelism between the first and second support members by deflecting.

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